

What is claimed is:

1. A system for providing voice and data services over a wired data network, the system comprising:

an unregulated wireless network including one or more wireless access points wired to the wired data network the wireless access points operative to provide wireless access to the wired data network over an unregulated wireless connection;

a regulated wireless network operative to provide telecommunications services on regulated wireless communications frequencies; and

one or more dual mode digital cordless handsets for communicating in a first mode with the one or more wireless access points via the unregulated wireless connection in order to provide the voice and data services and further operative to communicate in a second mode with the regulated wireless network in order to provide the voice and data services.

2. The system of Claim 1, wherein the one or more dual mode digital cordless handsets are further operative to switch between the unregulated wireless network and the regulated wireless network without user action.

3. The system of Claim 2, wherein switching between the unregulated wireless network and the regulated wireless network comprises exiting a wireless transmission area of the unregulated wireless network and entering a wireless transmission area of the regulated wireless network.

4. The system of Claim 3, wherein the dual mode digital cordless handsets are further operative

- to detect the signaling transmissions of the regulated wireless network;
- to register with the regulated wireless network; and
- to switch from the unregulated wireless network to the regulated wireless network.

5. The system of Claim 3, wherein switching between the unregulated wireless network and the regulated wireless network comprises exiting a wireless transmission area of the regulated wireless network and entering a wireless transmission area of the unregulated wireless network.

6. The system of Claim 3, wherein the dual mode digital cordless handsets are further operative

- to detect the signaling transmissions of the unregulated wireless network;
- to provide identification information to the wired data network via the unregulated wireless network; and
- to switch from the regulated wireless network to the unregulated wireless network.

7. The system of Claim 6, wherein digital cordless handsets are further operative to transfer the identification from the unregulated wireless network to the wired network where it is determined what voice and data services to provide based on the identification information.

8. The system of Claim 1, wherein a one of the one or more dual mode digital cordless handsets is operative to communicate with the wired data network via any one of the wireless access points.

9. The system of Claim 8, wherein the one or more dual mode digital cordless handsets is operative to switch between any two of the wireless access points during voice or data communication.

10. The system of Claim 9, wherein switching between any two of the wireless access points comprises exiting a wireless transmission area of a first wireless access point and entering a wireless transmission area of a second wireless access point.

11. The system of Claim 1, wherein the unregulated wireless connection is an IEEE 802.11b connection.

12. The system of Claim 1, wherein the regulated wireless connection is a GSM/GPRS connection.

13. A method of providing voice and data services over a wired data network and over a regulated wireless network, comprising:

detecting a dual mode digital cordless handset in range of a wireless access point over an unregulated wireless connection, wherein the wireless access point is wired to the wired data network;

providing for incoming calls to and outgoing calls from the dual mode digital cordless handset and through the wired data network;

detecting a loss of the unregulated wireless connection, wherein the dual mode digital cordless handset is moved from the transmission range of the wireless access point;

detecting the dual mode digital cordless handset in range of the regulated wireless network; and

providing for incoming calls to and outgoing calls from the dual mode digital cordless handset through the regulated wireless network.

14. The method of Claim 13, whereby if the dual mode digital cordless handset is returned to within the range of the wireless access point,

detecting a dual mode digital cordless handset in range of a wireless access point over an unregulated wireless connection, wherein the wireless access point is wired to the wired data network; and

providing for incoming calls to and outgoing calls from the dual mode digital cordless handset and through the wired data network.

15. The method of Claim 13, further comprising:

obtaining identification information from the dual mode digital cordless handset for provision to the wired data network; and

determining the voice and data services to provide to the dual mode digital cordless handset over the wired data network based upon the obtained identification.

16. The method of Claim 13, further comprising assigning an IP address to the dual mode digital cordless handset upon detecting the handset being in range of the wireless access point, and wherein providing for incoming and outgoing calls comprises establishing a VoIP session between the dual mode digital cordless handset and the wired network through wireless access point.

17. The method of Claim 16, wherein providing for incoming calls comprises detecting an IP address corresponding to a telephone number that is called and wherein the VoIP session is established with the dual mode digital cordless handset that is assigned the IP address corresponding to the telephone number.

18. The method of Claim 16, wherein providing for outgoing calls comprises establishing the VoIP session when receiving a dialed number at the dual mode digital cordless handset and completing a call to the party corresponding to the dialed number.

19. The method of Claim 13, wherein the unregulated wireless connection is IEEE 802.11b connection.

20. The method of Claim 13, wherein the unregulated wireless connection is a Bluetooth connection.

21. The method of Claim 13, wherein the regulated wireless connection is a GSM/GPRS connection.

22. A system for providing voice and data services over a wired data network and over a regulated wireless network, the system comprising:

a broadband residential gateway comprising a first network device for communicating with the wired data network, a second network device for providing a communications link to one or more wired network devices over a local wired network, and a wireless access point operative to provide wireless access to the wired data network over an unregulated wireless connection;

a regulated wireless network operative to provide telecommunications services on regulated wireless communications frequencies; and

one or more dual mode digital cordless handsets for communicating in a first mode with the wireless access point via the unregulated wireless connection in order to provide the voice and data services and further operative to communicate in a second mode with the regulated wireless network in order to provide the voice and data services.

23. The system of Claim 22, further comprising one or more digital wired handsets for communicating with the wired data network in order to provide the voice and data services.

24. The system of Claim 23, wherein the local wired network comprises a home phone networking alliance network.

25. The system of Claim 23, wherein the wired data network is operative to generate a telephone call directed toward the broadband residential gateway and wherein the telephone call may be answered on any of the one or more dual mode digital cordless handsets or any of the digital wired handsets.

26. The system of Claim 23, wherein the broadband residential gateway is operative to generate a telephone call directed toward the wired data network and wherein the telephone call may be initiated on any of the one or more dual mode digital cordless handsets or any of the digital wired handsets.

27. The system of Claim 23, wherein the system further comprises a directory information database and wherein any of the one or more dual mode digital cordless handsets or any of the digital wired handsets are operative to access directory information provided by the directory information database.

28. The system of Claim 22, wherein the dual mode digital cordless handsets transmit a user identifier to the wired network and wherein the system further comprises a restriction database of the wired network that applies rules to telephone calls of the dual mode digital cordless handsets based on the user of the dual mode digital cordless handsets.

29. The system of Claim 22, wherein the system further comprises a web interface at a personal computer linked to the wired network, wherein the web interface provides for entry of administrative information for providing the voice and data services over the wired data network.

30. The system of Claim 22, wherein the unregulated wireless connection is an IEEE 802.11b connection.

31. The system of Claim 22, wherein the unregulated wireless connection is a Bluetooth connection.

32. The system of Claim 22, wherein the regulated wireless connection is a GSM/GPRS connection.